

### § 80.773

for each radial the distance from the antenna site to the +17 dBu point of field strength using procedures of §§ 80.765 and 80.767.

(c) Plot on a suitable map each point of +17 dBu field strength for all radials and draw the contour by connecting the adjacent points by a smooth curve.

### § 80.773 Co-channel interference protection.

(a) Where a VHF public coast station geographic area licensee shares a frequency with an incumbent VHF public coast station licensee, the ratio of desired to undesired signal strengths must be at least 12 dB within the service area of the station.

(b) Where a VHF public coast station geographic area licensee shares a frequency with an incumbent private land mobile radio licensee, the VHF public coast station geographic area licensee must provide at least 10 dB protection to the PLMR incumbent's predicted 38 dBu signal level contour. The PLMR incumbent's predicted 38 dBu signal level contour is calculated using the F(50, 50) field strength chart for Channels 7-13 in § 73.699 (Fig. 10a) of this chapter, with a 9 dB correction factor for antenna height differential, and is based on the licensee's authorized effective radiated power and antenna height-above-average-terrain.

(c) VHF public coast station geographic area licensees are prohibited from exceeding a field strength of +5 dBu (decibels referenced to 1 microvolt per meter) at their service area boundaries, unless all the affected VHF public coast station geographic area licensees agree to the higher field strength.

[63 FR 40065, July 27, 1998, as amended at 64 FR 26887, May 18, 1999]

## Subpart Q—Compulsory Radiotelegraph Installations for Vessels 1600 Gross Tons

### STATIONS ON SHIPBOARD

### § 80.801 Applicability.

The radiotelegraph requirements of Part II of Title III of the Communications Act apply to all passenger ships irrespective of size and cargo ships of 1600 gross tons and upward. The Safety

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Convention applies to such ships on international voyages. These ships are required to carry a radiotelegraph installation complying with this subpart.

### § 80.802 Inspection of station.

(a) Every ship of the United States subject to Part II of Title III of the Communications Act or Chapter IV of the Safety Convention equipped with a radiotelegraph installation must have the required radio equipment inspected by an FCC-licensed technician holding a Second Class Radiotelegraph Operator's Certificate, or First Class Radiotelegraph Operator's Certificate once every 12 months. If the ship passes the inspection the technician will issue a Cargo Ship Safety Radio Certificate. Cargo Ship Safety Radio Certificates may be obtained from the Commission's National Call Center—(888) 225-5322—or from its Forms contractor.

(1) The effective date of ship safety certificates is the date the station is found to be in compliance or not later than one business day later.

(2) At inspection, the minimum field strength capability of the main installation and reserve installation when connected to the main antenna may be shown by the licensee by one of the following methods:

(i) Producing a record of communications on 500 kHz over a minimum distance of 370 kilometers (200 nautical miles) for the main installation and 185 kilometers (100 nautical miles) for the reserve installation which demonstrates the transmission and reception of clearly perceptible signals from ship to ship by day and under normal conditions and circumstances, or

(ii) Provide documentation by a professional engineer, or a person holding a first or second class radiotelegraph operator's certificate, or a general radiotelephone operator license, that the installation produces at 1.85 kilometers (one nautical mile) a minimum field strength of thirty (30) millivolts per meter for the main installation and ten (10) millivolts per meter for the reserve installation. The licensee shall provide, at a minimum, the name and license number of the individual making the measurements or record of communications.

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(b) Certificates issued in accordance with the Safety Convention must be posted in a prominent and accessible place in the ship.

[51 FR 31213, Sept. 2, 1986, as amended at 57 FR 26779, June 16, 1992; 63 FR 29960, June 1, 1998]

### § 80.804 Radio station.

The required radio station must comply with the provisions of this subpart in addition to all other applicable requirements of this part. The radio station consists of a radiotelegraph station and a ship radar station. The radiotelegraph station comprises a main and a reserve radiotelegraph installation, electrically separate and electrically independent of each other except as otherwise provided in paragraph (b) of § 80.805, a radiotelephone installation and such other equipment as may be necessary for the proper operation of these installations. The ship radar station comprises a radar installation and such other equipment and facilities as may be necessary for its proper operation.

### § 80.805 Radio installations.

(a) The main radiotelegraph installation includes a main transmitter, a main receiver, a main power supply, a main antenna system and a 2182 kHz radiotelephone distress frequency watch receiver.

(b) The reserve radiotelegraph installation includes a reserve transmitter, a reserve receiver, a reserve power supply, emergency electric lights and reserve antenna system: except that:

(1) In installations on cargo ships of 300 gross tons and upwards but less than 1,600 gross tons, and in installations on cargo ships of 1,600 gross tons and upwards installed prior to November 19, 1952, if the main transmitter complies with all the requirements for the reserve transmitter, the latter may be omitted.

(2) A cargo ship the keel of which was laid prior to June 1, 1954, may either be equipped with a reserve antenna or provided a spare antenna consisting of a single-wire transmitting antenna (including suitable insulators) completely assembled for immediate installation.

(c) The medium frequency radiotelephone installation includes a radio-

telephone transmitter, a radiotelephone receiver and an appropriate antenna system.

### § 80.806 Requirements of main installation.

All main radiotelegraph installations must meet the following requirements:

(a) The main antenna must be installed and protected to ensure proper operation of the station. Effective October 14, 1986, the main antenna energized by the main transmitter on the frequency 500 kHz must produce at one nautical mile a minimum field strength of thirty (30) millivolts per meter. If the main antenna is suspended between masts or other supports liable to whipping, a safety link must be installed which, under heavy stress, will reduce breakage of the antenna, the halyards, or any other antenna-supporting elements.

(b) The main transmitter must be capable of meeting the requirements of § 80.253.

(c) The main receiver must efficiently receive A1A and A2A emission on all frequencies within the bands 100–200 kHz and 405–535 kHz. It must have headphones capable of effective operation. The main receiver must have sufficient sensitivity to effectively operate headphones or a loudspeaker when the receiver input is 50 microvolts.

(d) The main power supply must simultaneously (1) energize the main transmitter at its required antenna power, and the main receiver, (2) charge at any required rate all batteries forming part of the radiotelegraph station, and (3) charge the main power supply for this purpose at all times including times of inspection. Under this load condition the voltage of the main power supply at the radio room terminals must not deviate from its rated value by more than 10 percent on vessels completed on or after July 1, 1941, nor by more than 15 percent on vessels completed before that date. While at sea, batteries forming part of the main installation must be fully charged daily.

(e) To measure voltage(s) of the main power supply at its radio room terminals, voltmeter(s) must be permanently